

## 2.6 The Distributive Property

### DAY 1

Like Terms: Terms with the same variables & the same exponents *can be added or*

Are the following like terms???

*Subtracted*

1)  $-8m$  &  $5m$

*yes*

2)  $2x^2$  &  $-27x^5$

*NO*

3)  $21wxyz$  &  $-3wxyz$

*yes*

4)  $8x^2y$  &  $12xy^2$

*NO*

5)  $-23c$  &  $-12c^2$

*no*

6)  $-54u$  &  $83u$

*yes*

If possible, combine like terms.

7)  $\underline{5x} + \underline{-3y} + \underline{9x}$

$$\boxed{\begin{array}{r} 14x + -3y \\ -3y + 14x \end{array}}$$

8)  $\underline{p} + \underline{p} + \underline{p} + \underline{p}$

$$\underline{4p}$$

$$p \cdot p \cdot p \cdot p$$

9)  $\underline{2x^2} + 3 + \underline{4x^2}$

$$6x^2 + 3$$

10)  $\underline{2m} + \underline{4n} + \underline{-6m} + \underline{1n}$

$$-4m + \underline{5n}$$

Using the Distributive Property . . .

11)  $3(x + 1)$

$$3x + 3$$

12)  $(m - 1)6$

13)  $-2(4 + 10n)$

$$-8 + -20n$$

14)  $-6(2p + 8)$

$$-12p + 48$$

Distribute, then combine like terms.

$$\begin{aligned} 15) \quad & \overbrace{4(2x + 3)} + 15 \\ & 8x + -12 + 15 \\ & 8x + 3 \end{aligned}$$

$$\begin{aligned} 16) \quad & 12p + \overbrace{(7 + 3p)^2} \\ & 12p + 14 + 6p \\ & 18p + 14 \end{aligned}$$

$$17) \quad 2d + 3(4d - 12) + 4(5d - 2)$$

Distribute then combine like terms.

$$18) \quad 4(4m + 3) + 5(m + 1) + 2(5 + 6m)$$

$$\underline{16m} + 12 + \underline{5m} + 5 + \underline{10} + \underline{12m}$$

$$3m + 27$$

$$19) \quad 4[2p - 4(3p + 8)]$$

$$4[2p + -12p + 32]$$

$$4[-10p + 32]$$

$$19.5) \quad 6 \cdot 8 + 3(3c - 1) + 3c$$

$$\rightarrow -40p + 128$$

Combine like terms.

$$20) \quad 12abc - 3a + 4b - 21abc - 8a + 16b$$

$$21) \quad -88wx + 4yz + 18wx - 3wx + 26yz$$

Homework:

Green Distributive Property (Day 1)  
Worksheet